THE WESTERN FARMER AND GARDENER,
AND HORTICULTURAL MAGAZINE.

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For the Western Farmer and Gardener.

Osborn Pear.

Messrs. Editors :—In compliance with your request, I send you the history and a description of the Osborn Pear, so far as known to me, with a drawing of the fruit, branch and leaf.—It fruited with me the past summer for the first time. It is a seedling, originated by John Osborn, of Economy, Indiana, some years since; and although small, it is highly worthy of a place in every well selected collection. It is far superior to many we import from abroad with high reputations. There is a richness and delicacy of flavor attached to it, which cannot fail to place it in the first class.

The fruit is small, form long, regularly diminishing to the stem, which is one inch long, and planted to one side; skin thin, and greenish yellow; flesh white, tender, juicy, and sweet, with a slight astringency; taste lively, and finely perfumed; blossom small; ripens the first of August.

I had heard this Pear highly spoken of when on a visit to Indiana some years since, and had endeavored to obtain by correspondence correct information from the originator, but in this I failed. I however succeeded in getting a tree from a horticultural friend in his neighborhood, the graft of which was cut from the original tree. I have not propagated it, for the want of that authentic information as to its character so essential to those on whom the public depend for their supply, but shall no longer hesitate.

Permit me here to remark, that I am gratified to observe in your January Number, your determination to pay more attention to Western fruits. This is a good resolution, which, I am sure, all your readers will hail with approbation. It should be borne in mind, that almost all our imported fruits are already described in various works and periodicals, perfectly within the reach of all who desire information on the subject.—But it is not so with Western fruits, much of which is not known beyond the immediate neighborhood in which it originated, and but little of it to our Eastern brethren, who, as well as ourselves, desire information on this subject. By pursuing the contemplated course, you will make your Magazine much more interesting and instructive to your fruit loving readers. It will give me great pleasure to aid you from time to time, in your efforts to bring into notice Western seedling fruits of merit, as they come under my observation.

With respect yours,

A. H. ERNST.

Spring Garden, near Cincinnati,
February 1, 1845.

Vineyards in Kentucky.

The cultivation of the grape, with a view to wine making, is becoming quite the rage in Kentucky. Among the many vineyards now in successful operation in that State, we notice that of Edwin Forrest, the tragedian, as in a very forward state. It is under the care of Thomas W. Whitly, lately of New York, (where he figured largely as President of the Sylvania Association.) This delightful property of Mr. Forrest bids fair to be as prominent a location for a private residence, as it is for a vineyard. The grounds in front of the house, which is, by the way, a beautiful Swiss Cottage, and the lawn, which overhangs the Ohio, opposite this city, are planted with a great variety of fruit trees, shrubs, and forest trees. We learn that upwards of three thousand vines and other trees have been planted during the last autumn and the present spring. The wine made from these grapes is a rich red wine, and finds a ready home market at one dollar a gallon. The crop, from one acre, in a fruitful season, will produce five hundred gallons.—*Queen City.*

Valuable Recipe for Whitewash.

Take about a peck of unslaked Louisville lime, and slake it in hot water; add to this, while hot, about six pounds of lard, or any house grease; then put in about two pounds of glue, and if for nice inside painting a pound of Spanish whiting, and a few handsful of salt. Apply it on while hot. This recipe was obtained from Mr. John Noble, of the Dennison House, who has been very successful with this on his buildings. No rain or dampness has any effect to darken this whitewash at any time.

☞ Lime that is most profitable for making mortar, is the most valuable for agricultural purposes.

Miscellaneous Notes.

☞ We had the pleasure of visiting a very pretty collection of plants and flowers in a small conservatory attached to the private dwelling of Mr. Brigham, on Elm street.—The is the most desirable plan for amateurs. This Green-house faces the back entrance of the house, and is seen immediately on entering the front door. The brilliant display of Camellias, Hyacinths, Polyanthuses, &c. in flower in the beginning of March, arranged in the most tasteful manner, with oranges and larger shrubs in the back ground, rising on tiers of benches to the height of the house, was most enchanting. Mr. Brigham, to obtain an early flowering of the Lilac, brings the plants into the Green-house about November. We observed the buds on these in February just on the point of bursting into flower.

☞ We observe in the "Notes and Recollections of a Tour through part of England, Scotland, and France," last autumn, by Mr. Hovey, and published in his Magazine of Horticulture for February, that he particularly notices (what we also always admired so much in England,) that the principal clumps, then in the ground, especially on lawns, were filled with Rhododendrons of various kinds, which Mr. Hovey says do remarkably well, and (we can well remember,) "how fine must be their numerous clusters of splendid rosy blossoms."—Mr. Hovey remarks, that "from the time he entered the best gardens there, he was constantly impressed with the importance which this shrub (the Rhododendron,) is destined to hold in our gardens. Although a native of our woods and forests, it is scarcely known out of its native habitats; yet abroad we see it the first ornament of the garden. By hybridization, and the production of an immense number of seedlings, during the last fifteen years, it has been increased in splendor, until it now almost equals its tender, but gorgeous Eastern sisters. How long shall our gardens be deficient in this great ornament? If our efforts can avail anything, it shall not be at a very remote period; henceforth we shall not omit every favorable opportunity to urge attention to this family, and through the medium of seedlings, we trust the efforts of both amateurs and nurserymen will not be unavailing in the production and dissemination of superior hardy varieties." We perfectly agree in this with Mr. Hovey, and can testify, from a knowledge of the great and showy beauty of the Rhododendron, which we have so often seen in flower in England, to its highly deserving the attention of the horticulturists here. Mr. Hovey wishes to see the *Lycesteria formosa*, or Nepal shrub, with numerous racemes of white flowers, succeeded by a purplish fruit, tried in our climate; he says it is very ornamental. Mr. Hovey, in the same tour, speaking of the Camellia, says, "the growth of the Camellias, in the Camellia-house, at the Liverpool Botanical Garden, surprised him; the vigor of the plants, and, at the same time, the smallness of the pots, exceeded anything he ever saw; some of the current year's shoots were, he says, twenty inches long, and proportionally stout; the pots one foot in diameter, and the plants from eight to ten feet high.—This great vigor, Mr. Shepherd, the Curator, informed him was attributable to *Guano*; the plants had had two waterings with it, one at the time they commenced to grow, and the other when they had completed it and began to show their buds. Mr. Shepherd had tried many experiments with this new fertilizer."

☞ Among the numerous proofs that horticultural taste and pursuits are greatly on the ascendancy in the West, is the fact that Societies have been formed at Cleveland, Ohio, and at Indianapolis, for some time, and this spring there is a Society of this kind being formed at Columbus, Ohio. About the end of the present volume of the Western Farmer and Gardener, we shall want at this point, the Queen City of the West, a publication devoted entirely to Horticulture, as the organ of the Society.—This we shall undertake, and from the facilities which our city affords on many considerations, particularly for engraving and paintings of fruits and flowers, &c., we think we can produce a work which will be worthy of the whole West in these respects. Probably we may devote sixteen, or perhaps twenty-four, pages of our work entirely to Horticulture each month, and the same number devoted to Agriculture and a portion of Horticulture; each separate works, but in the same form, and capable of being bound together, if desired.

☞ Another proof of the love of gardening and agricultural objects being greatly on the increase in this neighborhood, is the circumstance of there being seen every market day, a great number of fruit trees, shrubs and flowers for sale. Two or three years ago, there were comparatively very few of these things. Purchasers should be careful to inquire into the respectability of the persons selling, as they may be much imposed on, particularly in fruit trees. It is best to depend on the regular nurserymen, who have every motive to urge them to do what is right, and to be as correct as possible.

☞ A good illustration of the utility of an Agricultural paper is given by a correspondent, J. Dille, of Newark, of the Ohio Cultivator. He says: "To make your paper useful, it must act both as a sun and as a focus. As a sun, it must radiate light from the centre to the circumference; as a focus, it must concentrate the scattering rays from every smaller light.—To effect the first, is the duty of every editor;

the latter, that of the correspondent. But," he observes also, "it is the duty of editors to hold the lens, as well as to strike the flint, and elicit the spark."

☞ The general impression now is, that the prices of wool have reached the lowest point, and that a steady demand will continue. The stock in the hands of dealers and growers is less than it was at the commencement of the year 1844, but it is considered sufficient to meet the demand for the present:

Prime Saxony fleeces, washed, per pound,			45a50
American full blood,	"	"	40a42
" ¾	"	"	37a38
" ½	"	"	35a36
" ¼	" and common,	"	30a32
Smyrna Sheep, washed,		"	20a22
" " unwashed,		"	10a15
Bengal,	"	"	6a12
Buenos Ayres, unpicked,		"	7a10
" " picked,		"	10a14

The above is taken from an intelligent writer in the Boston Courier. It is encouraging to growers of wool, and we have no doubt of the correctness of the statement. The farmers of the West, and particularly of the Far West, are beginning to take up a subject—that of sheep husbandry—which has enriched every nation that has adopted it with good management and care.

☞ At the first business meeting of the Cincinnati Horticultural Society, we were rejoiced to see so goodly a number of members present, and the great eagerness and pleasure with which they received the seeds and scions distributed. This spring the subject of horticulture is opening upon us all with an evidently increased popularity, and such as we fully expected, and shall no doubt witness with accelerated speed, if we live, for many years to come. After years of labor, we are beginning now to have the inexpressible gratification of seeing our fondest hopes realized. There are unequivocal symptoms of a general public appreciation of these matters. The Society determined to continue their meetings every Saturday, at least during the spring, summer, and autumn. The Legislature of Ohio have seconded their efforts in granting a proper charter, and a law has lately passed, to which we have before alluded, to render the stealing or destruction of fruit, fruit trees, and ornamental plants, &c. a penal offence. Thus the whole community will soon be brought in with one voice to favor and to push forward the greatest interest of every country—the agricultural and horticultural. The Committee on Fruit submitted their Annual Report for 1844, which will be found in our present number. This we consider a most able and highly interesting paper, and will have an immense effect in bringing all to value the matter in its proper light, and in stimulating more and more the production of fine fruits. Our Library will receive important additions annually, no doubt, according to the recommendations of the Committee. Premiums on Fruits and Vegetables will soon be given, and all other suitable measures taken to forward and prosper the interests and objects of so invaluable an Association. We could very much wish to see a stronger attendance, not only of the members themselves, but of the friends of the cause, during the season, as well as of the practical men and amateurs of every degree of progress and position, both market gardeners, and those who, from their wealth and education, have greatly the means of doing some good in this worthy way before they leave this world forever.

☞ We see that our respected and talented cotemporary, A. B. Allen, Editor of the American Agriculturist, has adapted a valuable work entitled Stable Economy, a treatise on the management of horses, in relation to stabling, grooming, feeding, watering, and working, by John Stewart, a Scotch professor of Veterinary knowledge, to the American food and climate, published at New York, by Appleton & Co., price one dollar, 350 pages, 12mo. The experience of A. B. Allen, both in England and America, with the horse, has rendered him eminently capable of performing this task satisfactorily to the subject and the public. He has had a passion for the horse from childhood, and it has ever since been a particular object of his attention. This book, we understand, will be handsomely embellished. It is just ready for delivery.

☞ Our really lively and shrewd fellow laborer, Bateham, in the good, and, we sincerely trust, to him, profitable cause of agricultural improvement and conduct of the Ohio Cultivator, a paper devoted to the subject, and now beginning to be well known, in a congratulatory notice of our position in his first March number, has rather mistaken our remarks, (and we cannot suppose for a moment that it was intentional,) when we spoke of our independent position as regards private means. We said that if the Western Farmer and Gardener merely paid its expenses, (and these, from its expensive engravings of fruits and flowers, and its being stereotyped, are very considerable, and much more than the general run of such publications,) we should be satisfied, as we were fortunately in an independent situation as regarded private means. We did not say this in any spirit of vain boasting, or feelings of puffed up wealth; we asserted it in the pure sincerity of our heart at the time, and we used the words "in justice to ourself," with this meaning—that we so loved the cause and the subject, that we were willing, if need be, to devote our time and humble talents to these, even if our subscription list only enabled us to pay all costs. But we know both our friend

Bateham, and all true lovers of agricultural advancement in the country, will be pleased to hear that the receipts for the first six months of our present volume have exceeded our expenditures by a considerable, though not a very large amount; and such is the zeal for improvement, and call for our paper at this time, particularly in this city, and its neighborhood, that we fully anticipate an accession of five hundred subscribers during the opening of the present spring; we do not speak of thousands, because we wish to keep ourselves within the bounds of truth, although we observed, in our late remarks, respecting the Ohio Cultivator, that we would *try* to obtain half of the fifty thousand anticipated subscribers of that paper. And, moreover, we will again, when Mr. Bateham visits our city, take much pleasure in spending another pleasant day with our friend, in accompanying him round our city, to finish our introduction of him to the remainder of our nurserymen, and relatives and friends; and so in happy fellowship with him, lend our aid to the increase of his subscription list, and any other objects he may have in view.

☞ In our notice in the last number of our paper of the Indiana Farmer and Gardener, a strong spoke in the wheel,—nay, we might say, a wheel of itself,—in the great agricultural vehicle of our country, now moving so majestically, and even rapidly, forward on the great high road of knowledge, we erroneously styled the Editor, Mr. Beecher, *Doctor*. Now, the only way in which we can well get out of the difficulty, is to say, that as he is so capable of teaching others in the subject he has just now more particularly taken up, we fell into the very natural mistake of calling him *Doctor*.

Madder.

Madder is the root of the *Rubia tinctorum*, and of which there are two kinds. The best are those about the size of the little finger, of a transparent, reddish caste, with a strong odor, and smooth bark. They may be appreciated from two to four years' growth. On drawing the crops, they should be immediately cleaned from dirt, not by washing; after which the stringy filaments, and epidermis, are removed, which is called *mulle*, as also the pith, so as to leave nothing but the segneous fibres. I think in this climate the roots may be advantageously dried in the open air, (not in the sun,) or otherwise kilns may be substituted. Madder may be reduced to a fine powder, though it is more economical to employ the fresh root, which I have no doubt would be appreciated where the culture and manufacture was conveniently situated. It is to be remembered, the root once prepared, it must be guarded from humidity, which would considerably impair not only the sample, but the purposes to which it is applied The roots may be considered dry enough when by squeezing them they break readily. Madder contains two coloring properties, one of which is a kind of buff, the other red, which last is not very soluble in water. By adding too much into the solvent we lessen the high coloring effect, as the water has a greater affinity for the buff, though the red, by preference, will in a measure adhere most to the stuffs. For the application of this valuable root, which has called forth the attention and experimental operations of many, heavy premiums have been offered and awarded to define its uses fully.—Some chemists profess to have discovered the true coloring principle, termed *ælisarine*. Be it as it may, it is a beautiful fast color, though to fix it properly requires much experience; and a wide field is open for experimenting on its further use. It is considered that a heavy per centage of the coloring matter is wasted, from its being so insoluble. There is no doubt that Madder, as a crop, from its ready culture, and its certain demand, (there being so much used in this country, for which we have to send away the money,) would realize a nett profit of from fifty to seventy-five dollars per acre, and would require less labor than our corn fields; but the difficulty in obtaining good seed, or I may say seed of any kind, in this section, is a drawback on our trials. We are told it is growing in different places, but as there is doubt of obtaining it when we go for it, (and of the proper kind,) we put it off from time to time, until the season is past. I think if some of our Seed stores would keep it, it would be the means of many planting it; once let them touch the profits of ever so small a plot, and no further inducement would be requisite.

Should you deem this, or any part of it, worth communicating to the public through the pages of your valuable and interesting work, the Western Farmer and Gardener, it is at your service.

With the highest esteem for your agricultural talent, &c. &c.,

I am your obedient servant,

Sharon, Ohio. JACK SPRATT.

To prevent Onions from growing, as they begin to do at this season of the year, take a hot iron and sear the bottom of each bulb.—The rim, from around which the roots shoot, being thus deadened, the bulb will have no disposition to sprout. Of course, such as are seed, must not be so treated.—*Indiana Farmer.*

It is almost impossible to have deep milkers and great fatteners in the same cattle; they are qualities inconsistent with each other.

LECTURE,
ON
Comparative Anatomy and Diseases of Animals,

Delivered at Mount Pleasant, before the Hamilton County Agricultural Society, February 15, 1845, being the Introductory to a Course. By Dr. J. A. WARDER, Professor of Pathology, Anatomy, and Physiology of the Domestic Animals, to the Society.

Farmers—Fellow-Citizens:—Most of you are aware, that at the last annual meeting of this Association,—the Agricultural Society of old Hamilton county,—held near this place, one of the measures adopted by the Society, at the instance of a valuable member, was the establishment of four PROFESSORSHIPS of the Sciences which are intimately connected with our noble art: *Botany*, *Chemistry*, *Zoology*, and *Comparative Anatomy;* which last, the Society have determined to place under my care. And here allow me to ask your kind indulgence for my imperfections, and permit me, in few words, to express the deep interest felt in the *pursuit of agriculture*, which, indeed, was my *first love*, and for which I deemed a liberal education necessary, so that while actually and laboriously occupied with the *plough*, the higher departments of a complete agricultural education were progressing, and the profound study of ANATOMY, comparative and human, together with *Chemistry*, and its associate, *Zoology*, were claiming every leisure moment. Pardon this personal allusion; it is introduced simply to show the relation which exists between your speaker and your own favorite pursuit. Thus you see, that it has been his also; and hence the deep sympathy which he feels for your toils, and the deep interest he takes in your success, at the same time that he feels, this instant, more pride in filling one of your Professorships, than has been hitherto excited by any appointment which has been accorded him by a generous community. Allow me, then, to bid adieu to *self*, while the *subject* of the discourse should claim my every thought.

COMPARATIVE ANATOMY, or the study of the intimate structure of animals, is a pursuit which has been considered worthy the attention of many of the first minds of this and the preceding age. It was pursued, indeed, at a period when the prejudices of men precluded the possibility of investigating the human structure.—In those days, some physicians, unwilling to blunder along in the dark, and unable to overcome the prejudices of mankind, wisely determined to study *Anatomy* in the lower orders of life, since the higher were denied them. At this period, however, little advance was made in Comparative Anatomy. Happily, the mists of ignorance, and its consequent prejudices, have long since rolled away. Science has advanced in every department, illumining the world with her brilliant rays, and before her gentle approach ignorance has taken flight.

In later times,—indeed, within a century,—Comparative Anatomy has become a distinct and highly important branch of study; and let us hope that it will soon be more universally studied by all engaged in agricultural pursuits, for no one, at all acquainted with its details and application, will hesitate to acknowledge its vast importance to those engaged in the care and rearing of domestic animals. It is even now minutely studied by most of the enlightened young agriculturists in all parts of the civilized world. Upon its basis is founded all good *Veterinary* practice, which, without a foundation of this kind, is as perfect *Quackery* as is the practice of *Human Medicine and Surgery* without their preparatory study of Human Anatomy, Physiology, and Pathology. If a clock, or other piece of intricate mechanism, is out of order, where is the genius, short of inspiration and miracle, which will guide any of us, who may be wholly unacquainted with its structure, to remedy the defect? True, you may say that one may feel his way and hit upon the defective cog, then remedy the evil. But this is at best blundering in the dark, and if such a proceeding be condemned in the case cited, how much more true is it of that wonderful and most intricate piece of machinery, an *organized animal?* What worse than folly, ignorantly to attempt to relieve its defects!!!

The progress in Science and Arts is truly *onward*. And here especially, in the great and growing West, where the oldest native born has scarcely reached the meridian of life, and where changes almost like magic have been wrought, it behooves us to look well to ourselves, lest, in the universal advance of society, we may be left behind. It is needless for me to urge upon you the necessity of maintaining an advance in morals and science, commensurate with the physical progress everywhere apparent. The stability of our Government demands that universal education, religious and scientific, should keep pace with our physical development.

To descend more into detail, let us look at the importance of this branch of study to the *practical farmer*. Animals are constantly under his care and guidance. We have already alluded to the wonderful intricacy of their frames, which will be more minutely described as we advance in their study. Here, then, are so many kinds of delicate apparatus under the control of the farmer, dependent upon him for their support and happiness. Should he not know something about their structure and mechanism, and modes of working—in other words, their anatomy and physiology? How else can he possibly be prepared properly to provide for their wants, or minister to their relief when suffering? The following arguments

in favor of these pursuits, have been derived from a lecture delivered by the celebrated Dr. Benjamin Rush, in 1807:

We are bound to take care of our domestic animals, and relieve them from the sufferings of disease, in consequence of the relations which have been established between them and us by the Author of Nature. They were created at the same time, and of a portion of the same dust of which our great ancestor was formed. Moreover, we cause them to suffer diseases by our modes of treatment, for wild animals, roaming in the forests and prairies, have few ailments. Like the human race, they acquire new and violent diseases by civilization, and by the manner of life to which we subject them. Are we not also bound to study their diseases and their proper remedies by a principle of gratitude? They live only for our benefit. They cost us nothing in wages or clothing, requiring in exchange for their labor, and all the other advantages we derive from them, nothing but food and shelter. The motive to take care of their health and lives will be more striking, when we consider the specific benefit we derive from each of them. Thus the horse is not only an important appendage, but a necessary part of the cement of civilized life; he ploughs our fields—he drags home our harvests—he conveys the fruits of our labors to market—he keeps up the inland connexion between distant places—he ministers to our health and pleasure under the saddle and in harness. Nor let us forget his sagacity in discovering roads. In the physician's midnight excursions to visit the sick, how often has the horse conducted him in safety (even when overcome by sleep,) through imperceptible paths and across deep and rapid streams of water to the door of his patient, and back again to his own home. To the horned cattle, we are indebted for many of the comforts and blessings of life. The ox and the cow aid and sustain us during their lives, and nourish us by their flesh after death; besides furnishing valuable materials for our economy in their hides and bones, horns, &c. Sheep occupy a deservedly high rank among the animals that minister to our wants; their fleece, skins, flesh, and tallow, all contribute to the happiness and comfort of the human species. The hog is said, like the miser, to do good only when he dies; but this is a mistake; his living virtues should not be overlooked.

An additional reason for studying the diseases of animals is, that by so doing we may rescue them from the hands of quacks, who often aggravate the sufferings of disease by the evils of absurd, painful, and destructive remedies. Mr. Vial, speaking of the Veterinary science, says:—"At this moment all appears obscured or bewildered by the ill-placed confidence of the owners of cattle upon the blacksmith, upon the illiterate and conceited groom, or upon a set of men infinitely more mischievous than all the rest, who, arrogating to themselves the title of *Doctors*, distribute their *nostrums*, and destroy thousands, whose varied disorders they treat alike, neither consulting nature nor art for the cause or effect; but, at first sight, without investigation, proceed to open their veins, lacerate their flesh, cauterize sinews, and drench their stomachs with drugs, adverse, in general, to the *cure* they *engage* to perform." We are bound to study the means of preserving the health of domestic animals, by all those precepts in the Old and New Testament, which recommend kindness to them, and protection from outrage and oppression.

Let no one shrink back in alarm from the prosecution of these studies. The works of nature are always intensely interesting to the student who investigates them aright; and though some departments may shock the finer sensibilities at first sight, they by degrees acquire an intense interest, and confer the most exquisite pleasure in their practical pursuit.—The more repulsive departments may, in some degree, be acquired from books and plates, while the more attractive field of physiology and habits of animals may be trodden with delight by the most sensitive and fastidious, and has been made to yield its rich reward even to delicate females who have pursued this study. Be not disappointed if we should not at this time reach a point in our studies which will appear to be practical; everything must have a beginning, and every science must be based on a good foundation. Many names of animals, and families of animals, must be introduced, which may not be familiar to you; this difficulty it is difficult to avoid; they will be explained whenever it is practicable; but unfortunately every science must have its language, which it is not easy to translate. We, however, are here to learn this science, and must endeavor to master its language.

The Chair, or Professorship, you may observe is styled that of "*Pathology, Anatomy, and Physiology of the Domestic Animals.*"—When inquiry was made why the words were placed in this inverse order, it was replied that it was intended to bring the more practical department most prominent. Now, the order must be changed; for Pathology, which refers to *diseased states*, cannot be properly appreciated nor understood without a healthy standard of comparison. The proper order of these terms, and of their study, would be *Anatomy*, *Physiology*, and last *Pathology*. These three great subjects may be considered the three portions of a *pyramid*, of which the base may be represented by *Anatomy*; for alone the others cannot be understood, and any attempt to teach or elucidate them without it, would be like a pyramid deprived of its base; it could not stand. The sides of the structure may be represented by *Physiology*, which progresses as the base is strengthened and extended upwards in thick-

ness. These two go hand in hand in studying Nature; the first being an investigation of healthy structure, the second is the observation of healthy action. *Pathology*, on the contrary, is the apex of the pyramid crowning the whole, being indeed based upon them, and unsupported by a knowledge of them, *useless;* but, being the history of diseased structure and morbid action, you at once perceive that it is of immense importance in the cure of maladies.

The prolections from this Chair will consist of lectures upon *Comparative Anatomy*, in which the whole range of animal life will at times be made to pass in review before you; descending, in some instances, to the lowest forms of organized matter, and passing through different grades of development to the highest, as found in *man* himself, "the crowning masterpiece of all." The more light and agreeable study of *Physiology* will be constantly introduced as occasion may offer, and indeed is so closely connected with Anatomy, that it may best be studied in this connexion. It will be made to embrace the habits and instincts of animals, their varied peculiarities dependent upon peculiar organization; and you will be delighted in tracing the wonderful adaptation of means to their several ends, and the clear evidence of *design* which will everywhere strike you as being so apparent that "he who runs may read." When you shall have been introduced to the structure of the various organs and systems of organs of life, and made acquainted with the *physiological* actions of each, their diseased conditions, or their *pathology*, will be pointed out, and we trust in such a way as to be comprehensible to each, and divested as much as possible from their technicalities. In this way it is hoped that this very important subject may be brought before the members intelligibly, and at the same time directly, and without being clogged with useless knowledge, if indeed there be any such commodity.

The organs in which the several functions of life are performed, have been divided by anatomists into several groups, or *systems*, as they are called. This enables us to systematize the study. Thus we have the *Digestive System*, the *Respiratory*, *Circulatory*, *&c.*

The three just mentioned, are those which are most essential to life, and hence most universally bestowed. It will be interesting to study them separately, and you will probably be surprised to find their extent, importance, variety, and interest.

We shall commence with the study of the *Digestive Apparatus*, or that by means of which animals receive *aliment*, appropriate it to their use, of sustaining and enlarging their bodies, and by which certain portions of the body are removed. We must here premise, that organized beings subsist by the introduction into their bodies of certain substances, and by rejecting a part of their tissues. This receiving and rejecting require certain organs. The surface, or skin, is so modified as to perform the function. Let us examine its structure and peculiarities. It has various functions devolving upon it; it confines the limits of the body, protects it, and, in parts, it performs this double nutritive process to which we have alluded.

In the simplest animals the whole body seems to consist of a homogeneous mass, and the tissues of the surface cannot be distinguished from the rest of their substance. A little higher in the scale we begin to find a sort of *tegument*, or *skin;* still higher, as we ascend, the skin becomes more and more distinct, and composed of layers. We find organized portions of this tissue, and others apparently *inorganic;* these are called the *dermoid* and *epidermoid* systems. The dermoid is composed of the *derma*, or true skin. The bloodvessels pass through this, and spread out forming another layer called the *vascalar network*. Then comes the *pigmentum*, or coloring layer; above this is a delicate membrane, the *corpus papillare*, or expansion of nerves, which gives sensation to the surface. The envelope has two kinds of secreting organs, which Mr. De Blainville has called *crypts* (hidden,) and *phanera* (apparent.) The secretions from the first are *fluid*, of the latter *solid*. The *crypt* is a depression of the tegument dipping beneath its surface. The *phanera* is also seated in the skin, and produces a solid secretion. The inorganic elements of the integument are the *epidermis*, or scarf-skin, covering the whole body in most animals, and the products of the secretion of the various phaneric bulbs, such as the hair, teeth, nails, claws, horns, &c.

We have thus given a very rapid sketch of the general organization of the skin. As we might suppose, this is modified to adapt it to the various functions it is destined to fulfil.—Thus, in the intestines, (which you must recollect are lined with a continuous tissue with the skin of the outer surface,) the protective layer, called the *epidermis*, is deficient, and the *cutis vera*, from being highly endowed with nervous sensibility, to protect the animal, is here of a very cellular texture for absorbing nourishment.

As the organization of animals becomes more perfect, the various functions are separated.—We find portions of the tegumentary membrane converted into especial *organs;* in one place, for the absorption of food, or air—in another, for the excretion of the waste; so that we have three kinds of nutritive apparatus:

1. An apparatus for *Animal Absorption*, or the *digestive organs*, destined to receive, elaborate, and absorb the solids and liquids which the animal receives from without.

2. An apparatus for *Aërial Absorption*, or the *respiratory organs*, whose principal function is to transmit the gaseous fluids necessary to sustain life.

3. An apparatus for *Depuration*, or *excretory secretion*, the glands which separate and reject from the system those particles which have ceased to belong to it, and have therefore become noxious.

Nutrition, however, requires something more than *absorption* and *secretion* on the surface; hence we find the *Circulatory Apparatus* destined to carry to every part the materials necessary to compensate for its losses, and also to remove the products of decomposition. This completes the grand series of special agents of nutrition. *Nutrition* itself has no special organ, for it occurs in every point of the tissues.

Let us take up these different systems of organs separately, and begin with the *Digestive Apparatus*. In the lower order of animals, the function appears to be performed without any appreciable preparation of the food, which is simply absorbed; but in the higher animals, we find a true system of organs, composed of three distinct sections. In one, the food is bruised and chemically altered; in the next, it is *absorbed*, the essential act of digestion. The third portion carries off the recrementitious matters.

To form this apparatus, the integument enters the body, sometimes with but one opening, but oftener forming a canal open at both ends. By means of this contrivance, the animal that feeds upon solids, (which, of course, cannot be at once absorbed,) may carry his dinner about with him, and digest it at his leisure, and is not obliged, like the vegetable, to remain fixed in the place where he procures his nourishment; as wild geese with rice in their crops, wild pigeons, &c. &c.

The common form of the intestine is that of a tube with enlargements, separated by narrower portions. The opening, or mouth, is generally on the inferior face, and at the anterior extremity; it is of various forms, in different animals; in it the bruising of the food is generally effected. The back of the mouth is called the *pharynx*, opening into the *œsophagus*, or *gullet*, which is merely the passage to the *stomach*; this is the second enlargement of the tube; here the food undergoes a process which converts it into *chyme*. The size and shape of this organ depends upon the nature of the food; thus it is simple and straighter in carnivorous animals, complex in graminivorous animals.—The stomach opens by the *pylorus* into the *small intestine*, where the essential act of absorption is effected; hence its length and sinuous course, to give greater surface. Below, we find the *large intestine*, the third and last dilatation, destined to receive and reject the excrementitious matters from which all the nourishment has been absorbed. This generally terminates at a distance from the mouth. Let us examine the anatomical structure of this apparatus. As the integument enters the body to form the alimentary canal, it is still connected with flesh or muscles, and besides this, it receives a smooth shining layer called the *serous coat*. The skin is changed, becoming of a looser texture, greater vascularity, by the absence of nerves of sensation, and of coloring matter, by the extreme delicacy and partial absence of the epidermis, and by the great importance of its *crypts* or *glands*. The vascular web is developed in the small intestines, forming the *villi*. The internal epidermis, called epithelium, is found in the anterior portion of the canal. There are folds in the intestinal surface, which are transverse and longitudinal; their use is to give greater surface and capacity to the intestinal tube. The sensitive papillæ are the organs of taste; they are found on the tongue.

Crypts and *Phaneræ* are also found in this apparatus. The former are very numerous. When many are associated, they form organs called *glands*, which, from their apparent independence of the alimentary canal, have been considered appendages, rather than parts of itself. Such must appear to be the case with the liver, and some other glands, if studied only in the higher animals, where they are merely connected with the intestine by a long slender duct, or tube, discharging their secretion.

Proper glands belong to animals somewhat advanced in the scale of creation, and are wholly wanting in the lowest orders. The *liver*, which is the principal gland, is always situated near the origin of the middle section of the tube.—The first rudimentary glands are in the form of little pouches, simple or branched, deviating from the tube. A little higher up, in the series, they are more branched, and have more crypts; they next become more compact organs, made up of granules, and lobular in shape; at last, in the higher animals, the *liver* is a considerable organ, of a dense, compact tissue, less lobulated, and only connected with the intestine by its own excretory ducts, which are formed by the successive union of innumerable twigs and branches. On one of these ducts, in the superior animals, we find an enlargement called the gall-bladder.

The salivary glands are next in importance; those near the mouth pour out their secretion, to aid in masticating the food. The glands annexed to the digestive tube, are more constant and more fully developed in herbivora than in carnivora, in land than in aquatic animals.

The Phanera of the digestive tube are much less constant and less numerous than the crypts, and less frequent than in the outer skin; some of them, however, are of vast importance.—Their product is generally of a calcareous or horny matter, which assumes various forms, adapted to seizing and dividing the food; they are generally near the entrance into the canal, and form the teeth and beaks. The *muscular layer* of the intestines is not easily distinguishable in the inferior animals, but it becomes se-

parate and distinct as we ascend; it is formed of bundles of fibres, which always run in two directions, longitudinally and transversely.

Serous Coat.—In most inferior animals, the preceding coat is only separated from the general muscular system by cellular tissue; but in the higher, as the walls of the intestine become more independent of the external muscles, the cellular tissue is condensed and applied to each surface in the shape of a membrane, leaving a cavity between them, which allows freedom of motion; the part of this membrane, which surrounds the intestine, is called their *Serous Coat*, of which one portion is strongly adherent to the muscular coat, while the other is free and constantly moistened with an exhalation, allowing freedom of motion. After enveloping the intestines, the serous membrane is folded together, holding them in their places, and then reflected over the walls of the abdominal cavity.

Zoophytes.—In the lowest grade of organization, the living mass absorbs its nourishment from the surrounding medium; they are all aquatic, and constitute the *Zoophytes*, embracing the *sponges* and those microscopic animals known as the *infusoria*. When the organization assumes a more definite form, we find alimentary absorption is especially effected in some one organ, though other portions of the surface may also partake in the act. This apparatus, in the lower types of the series, is a mere depressson, or cavity, which receives the nourishment and rejects the excrement by one and the same opening, while digestion and absorption are also effected upon the general surface. We find this to be the case in most of the *radiated animals*, in progressive degrees.—In the simplest forms, or all the species embraced under the general denomination of *Polypi*, coral animals, the stomach seems to be a simple crease in the homogeneous *parenchyma* forming the body, and where these creatures have no distinct external covering, the walls of the intestinal sac are inseparable from the rest of the organism. In those rather higher in the scale, the intestinal surface is so little modified, that some of them may be inverted, and the external surface accomplishes the function of absorption, as well as the natural intestine. This may be readily observed in the *hydra*, or *fresh water polype*. In the aggregated polypes, the intestine terminates in canals, which extend into the fleshy mass of the polypifer, and which appear to supply the absence of circulatory organs. Mr. Raget, in his Bridgewater Treatise, (vol. ii. p. 64,) thus describes them:—"Each mouth leads to a separate stomach, whence the food, after its digestion, passes into several channels, generally five in number, which proceed in different directions from the cavity of the stomach, dividing it into many branches, and being distributed over all the surrounding portions of flesh; these branches communicate with similar channels proceeding from the neighboring stomachs; so that the food which has been taken in by one of the mouths, contributes to the nourishment of the whole mass. The prevailing opinion among naturalists is, that each *polype* is an individual animal, associated with the rest in a sort of republic, where the labors of all are exerted for the common benefit of the whole society. There is no more inconsistency in supposing that an individual animal may possess any number of mouths, than that it may be provided with a multitude of distinct stomachs." This arrangement is very common in the *Radiata*, and some species have the alimentary sac and its opening replaced by blind canals which open at the surface by little pores, sometimes in the form of suckers at the end of the tentacles, as in the *Medusa*, *Lænia*, *&c.*

The *Echinodermata*, or Sea Urchins and Starfish, exhibit an important development of the alimentary canal; first its walls become distinct from the surrounding tissues; we next find blind appendages added to the organ; these are the primary rudiments of a liver, indicating a more perfect digestion, and leading us to expect the three great divisions of the apparatus, which are first observed in the *Asteriæ*, (Starfish,) where we find the mouth opening in the centre of the starry disc; this leads to a central stomach, which opens into the *cæca*, or canals, that traverse the rays in the true Starfish; and these must be considered the rudiments of a liver; the intestinal walls are very distinct from the subjacent tissue. In the higher *Echinodermata*, as the *Echini* and the *Holothurians*, we find the alimentary cavity is no longer a sac, but a canal with two openings, a mouth and anus, with no sensible dilatations in its course, nor any contractions separating the digestive, absorbing, and excrementitial portions. The mouth of the *Echinus* furnishes the first example of masticating organs; it is a pyramidal cavity, with five calcareous plates.—This has been called Aristotle's Lanthorn, and has its point directed downwards, each of the pieces has a single moveable tooth, and the plates are moved by muscles, so as to masticate the food. In some *Echini* the mouth and anus are together, but they are generally at opposite parts of the body. In the *Holothurians*, the mouth is at one end of the body, and the anus at the other. The former is furnished with numerous tentaculæ and a ring of solid pieces, that provide a point of attachment to the muscles. In these *Echinodermata*, the intestine is somewhat dilated near its termination, and presents a number of vascular arborescences, which have been taken for bronchi, but which are water-bearing canals, like those in the tentacula about the mouth.

Ascending from the *Radiata*, we next find in the *Molluscans*, or muscles, oysters, shellfish, a new develooment in the organization of

the digestive apparatus. In all of these animals, the canal has two openings, and may be divided into two distinct sections; one digestive, the other both absorptive and excrementitial; the first is composed of a mouth, œsophagus, and stomach; the second, formed of a long intestine, more or less folded upon itself, according to the form of the body. We can also generally detect the tegumentary and contractile layers in their intestines, and the crypts are somewhat developed, forming true glandular masses, either salivary or hepatic. In some the phanerae are are also discovered, furnishing organs for mastication; and the tongue is detected as a rudimentary organ.

If we take up each of the classes composing this type, (*Molluscans,*) we shall find many variations depending upon the nature of the food, and the period of its detention within the body. Those Molluscs which feed upon very small animals, or upon the impurities of the surrounding liquid, have no teeth, as is the case with the *Acephala, (headless;)* but we find them in many *Cephalopods* and *Gasteropods*, that live on larger animals and vegetables. The *Helices*, (snails,) *Lymneæ*, and other Gasteropods, (foot stomach,) generally have one tooth, which is always in the palate; it is cut like a comb, and is opposed to a short, thick, and very moveable tongue. Two teeth are rarely found; and then they are either lateral, as in the *Tritons*, or above and below, as in the *Brachiocephala*. The *Acephala* have neither tongue nor a mouth, but a pretty large orifice, which gives the food, already prepared for chymification, immediate entrance into the œsophagus, which leads to one or two stomachs, then to an intestine of moderate length, which terminates, after a few convolutions, at the back part of the cavity of the mouth. Just before its termination, it is surrounded by the heart, which it seems to traverse. The crypts, in these inferior molluscs, form a glandular mass around the stomach, which is supposed to be the liver, pouring its secretion into the stomach by several orifices. In the *Cephalous-mollusca*, that generally live by prey, and upon food less easily digested than that of the *Acephala*, the intestinal canal begins with a mouth, where the food is prepared by teeth; next comes an œsophagus, sometimes long and narrow, sometimes pretty large, which leads into a stomach, that is simple in the carnivorous species, but often divided in those that live on vegetables. In some, the muscular coat acquires considerable development in one of the divisions of the stomach, which becomes a true gizzard, fitted for bruising the food. Many species of Gasteropods have horny or calcareous productions on the surface of the stomach, to serve for teeth. The intestine is longer and more convoluted in the herbivorous *Gasteropods*, such as the *Lunax* (slug,) and *Helix*, (snail,) than in other *Molluscans;* it usually terminates in a very simple anus, generally placed on the right side of the body, sometimes on the mesial line, either forward as in the *Brachiocephala*, or nearer the posterior extremity, as in the *Doris*, superiorly in some species, inferiorly in others. The crypts form glandular masses in all the *Cephalous-molluscs*, either salivary glands, with excretory ducts leading into the mouth, or a liver, surrounding the stomach, though separated from its walls, except by several short excretory ducts, emptying into it the secretion of the gland. In some species of the *Doris*, a little paunch is seen between the lobules of this gland; it is perhaps the first appearance of an intestinal reservoir, and has been called a *gall-bladder*.

(To be Continued.)

Letter from H. N. Gillet.

Evergreens, January 31, 1845.

Messrs. Editors:—I have been trying, for several years past, to induce the citizens of this county, to start an Agricultural Society. I find a goodly number of farmers, who are willing to admit that such an institution would be of great utility, but no one willing to go ahead, or to pledge themselves to exert their influence to keep the institution alive, while the majority are entirely lukewarm about the matter, and some few utterly opposed to an Agricultural Society; the reason they assign is, that if Agricultural Societies become common throughout the country, it will stimulate the people to produce so much, that the market will be glutted, and we will have no purchasers for our produce. And as the farmers will not read agricultural papers, I have given up in despair; but we are about to have a tolerable good substitute in this Bottom, I think, at least, and I hope others will be induced to adopt the same plan. This Bottom includes the lower end of Rome and upper end of Union townships; we have formed an Association, denominated the *Rome and Union Farmers' Club*. I will give you the substance of a few Articles, as adopted, in our Constitution. After stating the object of the institution, and defining the duties of the officers, &c.:

The meetings of the Society shall be holden monthly; once at the house of each respective member annually, or as nearly so as the number of members will admit; all over twelve hold over till next year, of course.

Mode of Appointing the Monthly Meetings. Each member's name is written on a slip of paper, and deposited in a box, or hat; the President draws out one by one; the first meeting will be holden at the house of the member whose name shall be first drawn, and so on through; where said member shall furnish a good, plain, substantial farmer's dinner, and present for the inspection of the Society, such

farm crops, stock, animals, implements, buildings, gates, hedges, ditches, fences, fruits, fowls, vegetables, seeds, &c. as he may deem worthy. After which, it shall be the duty of the President to deliver, or cause to be delivered, an address on the subject of agriculture; after which each member is required to give his views on the subject of discussion, and to give a detail of his operations, in whatever experiments he may have made in his agricultural or horticultural pursuits.

Every member shall make a series of experiments annually, on some one, at least, of the following articles, namely:—To test the relative value of the several different kinds of manure; the relative value and productiveness of different kinds of wheat, corn, potatoes, oats, beans, peas, fruits, vegetables; feeding or fattening of different breeds of cattle, hogs, sheep, poultry, &c.; or anything else that he may deem of interest; and to give a correct detail of the operation and result to the Society as soon as practicable.

All members are required to attend all the monthly meetings of the Society; a failure to do so will subject the absentee to a fine of twenty-five cents, unless a reasonable excuse be given for non-attendance.

We thought best to admit but sixteen members. We have them of the right grit, I think. The Constitution, however, provides that more may be admitted by the unanimous consent of the Society.

The officers shall be elected annually, at the Anniversary Meetings of the Society, which take place on the second Friday in January.

Membership, twelve and a half cents annually; barely enough to furnish stationery for the Society, and a dime occasionally for postage. No premiums to be awarded.

As I intend to try a few experiments myself this year, it is time to begin to supply myself with the wherewith; and as corn is one of my favorite crops to project with, I wish to procure as great a variety as convenient, and especially those kinds most highly esteemed. I observed a kind of yellow corn spoken of in the current volume of the Farmer and Gardener, as the kind cultivated by George W. Williams, Esq. of Bourbon county, and also a very large kind of white gourdseed corn, with ears of unusual length, at Mr. Huxley's Seed Store. I will take it as a favor if you will procure a few ears of each for me, and deposite them at Mr. Huxley's Seed Store, where I will call, or send, and pay for them. Please request Mr. Huxley to save me some of his choicest kinds of melon seeds, without fail.

February 1, 1845.

We have had a remarkable winter thus far, or more properly, no winter at all. We had a few cool days before Christmas, since which, with the exception of a few very slight freezes, we have had April weather, until the day before yesterday, when it turned cool, making fine sugar weather. It is now snowing, and has the appearance of winter. Three days ago I saw and plucked strawberries in full bloom, and a great many buds just ready to open; they stand in the open field, entirely unprotected.—There has not been a day since February last, that one could not have plucked a handful of pansies from my garden, as fresh as May, and quite as beautiful as I ever saw, without the slightest protection. The wheat fields, until two days past, looked as if they never felt frost. I sowed a small plat of wheat December 26; it is now up, two inches high. Clover, and other grass seeds, have come up in abundance. Turnips have grown more than half since Christmas. Peaches are so much swollen, I fear they will be all killed. The daffodils are up, and budded for blooming.

I observed a communication, I think in the current volume of the Farmer, on the subject of preserving apples, potatoes, and other roots or vegetables, recommending that they be partially covered, then frozen before they are finally covered for winter. Now, this may possibly do for apples, and no doubt would do for turnips, beets, carrots, and parsnips; but the potato part of the story, I think ought not to go unnoticed. And as you let it pass without comment, I thought it my duty, or somebody's duty, lest some one might be induced to try the plan with potatoes, or might neglect to protect them from frost, and thereby lose their whole crop, to forewarn such as do not already know, if any there be, that the slighest freeze will destroy that root, or so much of it as may be frosted, at least. I care not whether it is in or out of the ground or water; for burnt brandy would not save it from decay, so soon as the frost is fairly out of it. I admit, that a frozen potato may be eaten immediately after the frost is extracted; but I would as soon expect a frozen egg to hatch a live chicken, as a frozen potato to vegetate.

H. N. GILLET.

Quaker Bottom, Lawrence county, Ohio.

To preserve Steel Instruments or Tools from Rust.—Take a piece of buckskin and rub it over with a few cents worth of mercurial ointment. This applied, will preserve steel from rust, but will not take it off when once on.

Planting Corn.—Drop six grains in each hill at first, in order to thin to three plants; pluck out the weakest.

Corn and potatoes cultivated in alternate rows, increases the product of the potatoes one-fourth.

Agricultural Convention in Ohio.

We observe that a series of resolutions were passed at the meeting of the Hamilton County Agricultural Society, held at Carthage on the 15th ultimo, in favor of having a Convention of the friends of Agriculture in Ohio. As our legislators at the seat of Government in our State at the last session have thought proper to pass by the subject of legislative aid, without effecting anything for the greatest interest that occupies the industry of man, we think that measures should be taken as speedily as possible to agree upon a mode to arouse a proper spirit of legislative action at the next General Assembly. We must also take steps to disseminate such information as will be likely to produce such laws as will lead to the decisive advancement of the cause of agriculture.

Those who unite with us in these opinions, and will personally interest themselves in the matter, by their attendance, or otherwise, will send their names to E. J. Hooper, Editor of the Western Farmer and Gardener, before the first of May, with any observations they may think proper to make to forward the business.

We cannot but think that Cincinnati, from its advantageous position as regards access to it from all parts of the State, except the extreme North, would be the best place for such a Convention; but we say this to invite consideration merely, for if any other point (Columbus, for instance,) should be considered better by the majority of the farmers, we shall most readily come in to the propriety of having that city the place of meeting. But if the farmers of our State should consider that Cincinnati will be the most convenient and accessible point in every respect, we suggest having the Convention held at the same time as the Agricultural Fair of Hamilton County, and the fall exhibition of the Cincinnati Horticultural Society.—This would create a concentration of interest and attraction that nothing else could offer, particularly as the farmers are now beginning to pay so much attention to the culture of fine fruits. These Exhibitions, and the Convention, could all be held in the same week, and would not fail to be objects of great attraction to the visitors.

We publish below a communication from the Ohio State Journal, on the condition of Ohio agriculture, showing the necessity of our taking proper means to improve this state of things. E. J. H.

Ohio Agriculture—Startling Facts!

Messrs. Editors,—As the subject of *Agriculture* is now before the Legislature, and some persons suppose that there is no need of legislating for its promotion, permit me to call attention to one or two facts, or considerations, which all must concede are of the highest importance to the people of Ohio.

The State of Ohio has the enviable distinction of being the greatest *wheat growing* State in the Union. This, all are aware, is no empty or *unprofitable* praise. But are the people and the legislators of Ohio aware that in all probability *they will no longer be entitled to this high honor*, unless immediate and efficient measures are adopted for the promotion of agriculture, and the introduction of improved methods of cultivation? Let us look at the figures, and see what is the evidence of this assertion.

From the Reports of the Commissioner of Patents, (which are acknowledged as the best authority to be had,) we find the wheat crop of Ohio, for the past three years, estimated as follows:

	Bushels.	
Crop of 1842.....	25,387,439	
" 1843.....	18,786,705	(30 per cent. less.)
" 1844.....	15,969,000	(15 per cent. more less.)

Showing a decrease of forty-five per centum, or *nearly ten millions of bushels in only two years!* And another important fact is, *there has been no proportionate increase of other products* to offset this loss. Is it any wonder, therefore, that the State is embarrassed, and that the farmers find difficulty in paying their taxes? (The reports of our Board of Public Works show a decrease of this crop for the past *four* years.)

Now let us look at New York, where agriculture is encouraged by an appropriation of eight thousand dollars per year, and aided by State and County Societies, and we shall find that exactly opposite results are manifest. The same authority estimates the wheat crop of New York thus:

	Bushels.
For 1842.....	11,132,472
" 1843.....	12,479,499
" 1844.....	14,975,000

Here we see a gain of nearly four millions of bushels in two years, and it can also be shown, if necessary, that nearly all the other products of the farm in that State, have increased in a proportionate ratio for the past four years. It is easy to see from these figures, that in all probability the next annual report will show Ohio stripped of her proudest agricultural honors, and New York bearing off the palm in this, as she does already in most of the other great staple productions.

But Ohio possesses at least double the number of acres adapted to wheat culture that New York does, and if timely measures are put in operation, the prize may yet be saved or regained, if for a season lost. It is for the General Assembly to say whether this shall be done.—Let the plan now before them, or a similar one, be adopted, and no man who has seen the operation of such measures can be at a loss to predict the most beneficial results.

CERES.

The Rose.

The compilation proposed from Buist's Rose Manual, (the first of which was published in the January number,) was omitted in the succeeding numbers from the absence of the writer. While in the South, the profusion of Bourbon, Bengal, Perpetual, Noisette, Tea Roses, &c., showing flowers there through nearly the whole year, increased the good opinion that I had of this family. Many of the fine varieties can be had here; the collections of a number of our plant growers contain as many as most amateurs would wish to purchase.

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ROSES THAT BLOOM IN JUNE.
(CONTINUED.)

Rosa Gallica—*Rose of France.*—Nearly all the striped, mottled, and variegated roses, have originated in this group, which is very large. *Africaine or Belle Africaine*, is one of the darkest. *Baron de Stael*, blooms perfectly; pale cherry color. *Carmin Brilliant*, is well and expressively named. *Fanny Parissot*, has few compeers; pale blush, bright pink toward the centre. *Hercules*, has a delicious fragrance. *King of Rome*, very fine bright red. *Polinetis*, very bright crimson, of the crown form. *Ranunculus*, great and persistent bloomer; mottled rosy purple flowers. This group requires to be well pruned early in the spring.

The following are some of the striped, mottled, and marbled varieties:

Berleze, very double violet crimson, beautifully mottled with rose. *Molesherbes*, rosy purple, spotted with white. *Jeanne Hatchette*, red, suffused with crimson spots. *Œillet Perfait*, sells in England for one guinea, beautifully striped with rose, red and white. *Panaché Double, or Village Maid*, was the first of the striped roses much cultivated.

In strong, rich soils, much of the distinct character of the Variegated Rose is lost; it is, therefore, advisable to keep them in moderate soil, inclining to sand, refreshing them every year or two with manure.

Rosa Alba—*white garden rose. Madam Hardy*, large, very double, pure white, of a cup or bowl form. *La Belle Augusta*, is a blush, changing to nearly white. *Princess Clementine*, is quite new. *Reine des Belges*, is a very pure and perfectly double variety. The number of varieties of this group is small, and the only one very common is the old double white, an excellent rose.

The Damask Rose, is frequently confounded with the Provins and Gallicas. The characteristics of the Damask are—"they all have that delicious and agreeable odor so peculiar to the 'Old-fashioned Damask,' and also produce their flowers in clusters; they have a long succession of bloom, and are distinguished by long, spreading branches, thickly set with prickles; the foliage is strong, of a pale green, and deeply hued." In this group—*Mathilde de Mondeville*, delicate rosy lilac. *York and Lancaster*, often one-half pink, the other white. *Monthly Damask*, white and red, flowers several times during the season.

Hybrid Chinese Roses.—These originated from the seed of the Bengal, Tea, and Bourbon Roses, impregnated with the pollen of the Provins, Damask, or other roses that bloom but once during the season. These bloom but once, but then very beautifully, showing some of the largest and finest specimens, and in great variety. From their strong growth, they are admirably adapted for pillars, trellises, &c. I can but give the names of some of the leading varieties. *White, Climbing, Globe, Unique, Belle Parabere*, excellent for pillars. *Brennus*, is superb—flowers extra large, of a glowing red. *Cerisette*, brilliant scarlet. *D'Andigne*, is said to approach to blue more nearly than any other rose. *George the Fourth*, is a magnificent rich crimson. *Hybrid Blanche*, is a neat white. *La Tourterelle*, or the Dove Rose, is much admired. *Louis Phillippe*, is new, dark rose color, very beautiful and fragrant. *Pallagi*, or *Ne Plus Ultra*, is a bright rosy purple. *Sandeur Panaché*, or King of the Hybrids, flowers distinctly spotted and marked; it must not be "shortened in," in trimming. *Victor Hugo*, is a cherry red, changing to a rosy violet. *Violet de Belgique*, is very large.

The soil for Roses can hardly be too rich; but these hardy roses will grow on any soil.—Mr. Buist recommends fall pruning, though I have found early spring pruning to succeed well. The Moss Roses do not bear much pruning; cut out the old and decaying wood, and cut in the other but sparingly. C. W. E.

To Raise Fine Melons.

Holes two feet broad, twenty inches deep, filled one foot with garden rubbish and unrotted manures, beat down hard, and watered two or three buckets full, then filled to the top with rich soil; on this spread one inch of fine compost, or well rotted manures, compact, but not hard; stick the seeds, say twenty or thirty to a hill, the upper end of the seed to be a little below the surface of the compost; brush over the hills with the hand to fill up the holes; then cover the hills with an inch of clear sand, and often watered; hills ten feet apart, three plants to the hill left, thinned when the plants have six leaves, then take off the centre shoot with a sharp penknife, and when the side shoots are six inches long, take off all but three; secure these to the ground with cross sticks.

Culture of the Grape.

Messrs. Editors :—As public attention, at the present time, seems to be somewhat enlisted in the culture of the Grape, and as its success is pretty well established in the vicinity of Cincinnati, where it is rapidly extending, a brief sketch of the most approved mode of establishing a Vineyard, may be acceptable to some of your readers.

The first step, then, is the preparation of the ground. The sides or tops of limestone hills are generally chosen for the location, where the water runs off readily. South and Southeastern exposures are the best in this climate. Three modes of preparing the ground are usually adopted here. The first consists merely in deep ploughing, with a common plough, as for potatoes, and making the surface fine and mellow with the harrow. The second method goes one step further, and a second furrow is cut in the bottom of the first; in the bottom of this second furrow, a subsoil plough is run, which breaks the ground altogether to the depth of sixteen or eighteen inches; it is then harrowed and prepared as in the first. The third method is, by thorougly trenching with the spade to the depth of not less than two feet.—If the hill side is steep, say at an elevation of twenty or thirty degrees with the horizon, terraces are also raised from two to four feet in height, and extending up the hill from twenty to sixty feet each, according to the acclivity of the surface. By this last mode, the top soil is all thrown into the bottom of the trenches, and the subsoil, which is generally clayey, thrown upon the top, and left sufficiently smooth for planting. Where stones are found in the soil, they are thrown out on the surface, as the trenching progresses, up the hill; and, if in sufficient quantity, are laid up in walls to support the terraces. The terraces are made to run horizontally along the hill side, or nearly so, with an open ditch for a drain at the upper edge of each terrace, and a similar horizontal ditch as often as once in eighty or a hundred feet, where the ground is not terraced. These drains should lead to the lowest point in the vineyard, where a suitable drain should be constructed down the hill, to carry off the surplus water in heavy showers, and may be covered like a culvert, or left open. In each case, the vines are planted in rows, four feet apart, if to be worked with the hoe and spade, and from five to six feet, if to be worked with the plough or cultivator, and should always run horizontally with the terraces and drains. The distance between the vines in the row varies from two and a half to four feet, according to the mode of training which is to be adopted.

Cuttings of the vine, with three or four eyes, are sometimes planted, at proper distances, in the vineyard; but the usual practice is, to plant them first in a nursery, in rows, about eighteen inches apart, and from four to six in the row, to strike root; here they are to be well cultivated, and allowed to grow one or two years, when they are taken up in the spring and planted out in the vineyard. The fourth year from the cuttings, that is, after they have had three summers' growth, two in the nursery and one in the vineyard, they may be allowed to bear a full crop, or nearly as much as they ever should be allowed to bear thereafter, which is about one-fourth of a peck of grapes to each vine. One acre of ground, planted six feet by three apart, will contain about twenty-four hundred vines, consequently will yield about one hundred and fifty bushels of well assorted grapes, which will make three hundred gallons of wine, sometimes a little more. An acre of good ground, well trenched, and planted with Catawba vines, after it has acquired six or seven years' growth, may be made to produce a much greater quantity; and some small vineyards below Cincinnati, on the hills of the Ohio River, have produced at the rate of eight hundred gallons per acre, but the vines were planted four feet apart each way, making twenty-six hundred and forty vines to the acre; but the proprietor admitted that his vines were injured by overbearing, and that his wine was inferior in quality when allowed to produce that quantity.

I give three hundred gallons as the full average quantity of wine made to the acre in the neighborhood of Cincinnati; of course, much variation will depend upon the manner of establishing a vineyard, and its subsequent treatment.

The comparative merits of the different modes of preparing the ground for a vineyard, cannot, as yet, be settled by experience in this part of the country, as the oldest vineyard, I believe, has not been established more than twelve or thirteen years. Vineyards planted at Vevay, in Indiana, by the Swiss, merely on deeply ploughed ground, failed in fifteen years. When the ground is ploughed eighteen inches deep, it may bear tolerably well for twenty years; but a vineyard planted on ground well trenched two feet deep, and properly drained and cultivated, may be expected to last fifty or one hundred years, perhaps more. The crop, also, is much more certain when the ground is well trenched, not being so liable to suffer from droughts or rainy seasons.

The advantages of deep trenching have become so apparent to those who have had the most experience, that nearly all who can afford it, are now preparing their ground in this manner, although done at an expense varying from eighty to one hundred and twenty-five dollars per acre, according to the character of the ground. This, with the addition of twenty-four hundred vines, at sixty dollars per thousand for one year old vines, the customary price in this market, with the cost of planting, will make the expense of one acre, exclusive of

land, stakes, &c., at least three hundred dollars, or without trenching about two hundred.

In some future number, I may go into the details of training vines, and the usual modes of making wine in this district.

S. MOSHER.

Latonian Springs, Ky., March 10, 1845.

The Mildew.

Messrs. Editors:—I am what is called a *dear lover* of a garden, but perhaps too selfishly so, for what it produces to gratify the animal appetite. One of my greatest luxuries during the summer is a succession of fresh and tender green peas. I have seldom failed to have these as early and late as any of my neighbors. This past summer, however, all my plantings have been destroyed, before they came to maturity, by the mildew. I shall be much gratified if you, or any of your correspondents, will inform me of a preventive of this destructive and unsightly malady. Is it in the seed, or the soil, or the season? My soil is a sandy loam, with a subsoil of clay. It is in a good condition, and had been well spaded and trenched in the month of November; had brought good clear crops the year before. The kinds planted were Early York, Charlton Blue Prussian, and Dwarf Imperials. They all shared the same fate, the disease commencing before they began to blossom. What peas were produced, were insipid and almost tasteless. I have often had my late crops thus "untimely cropped;" but never any of the early spring planting. To be sure, the season was a watery one, but the nights not unusually cold after April had left us. My other vegetables were unusually productive, particularly my potatoes, which, it appears, have generally failed. These I planted very early, gave them two slight ploughings, without hilling; planted single potatoes, without cutting. They were smothered with a late crop of grass, yet averaged half a peck per hill.

I observe that Mr. HAYWOOD, the lecturer on Agricultural Chemistry, attributes the mildew altogether to the rapid evaporation of water from the leaves of plants, after a wet spring, leaving the salts on the surface of plants. If so, how is it the *later* planted and *last* planted shared the same fate?

Wishing you increasing patronage and success, I remain, very respectfully,

Philomath, Indiana. W. AMPHLETT.

Where Hyacinths, Tulips, &c. are breaking ground, (a sure sign of too shallow planting,) they should be covered with light litter, or cold nights will very much weaken them. The bulb is hardy enough; but severe cold effects the flower.—*Indiana Farmer.*

☞ The following article is from the pen of Mr. BEECHER, Editor of the Indiana Farmer and Gardener. We perfectly agree with him in his views of the best mode of raising and buying garden seeds. We know in the neighborhood of London, in the counties of Essex, Kent, and Surry, the seedsmen get the farmers to raise different kinds of seeds in different districts of country, and the farmers are in the habit of agreeing one year among themselves to raise a particular seed in a certain part of the country, and in another year another kind; thus, there is no danger of a mixture. We have never found all the seeds,—nor near all,—of the Shakers pure, or without mixture. It is a necessary consequence of raising so much seed in one place. We recommend people to buy of those who, as a general rule, obtain their seeds from the most reputable establishments from the East or from England; at all events, until a first rate seed raiser is to be found among us, and even then seeds are best from a distance, and rather North of us.

Garden Seeds.

It is time that seeds should be selected. Good seeds are the very first requisite for a good garden; soil and culture cannot make good crops out of bad seed.

1. As a general rule, *buy your seeds.* The reasons for it are so many and so good, that you will certainly do it, unless *economy* prevent; but it is better to economise elsewhere.

In the first place, seed-raising is a delicate business; and, for many reasons, will be better done by those who make it their business, than by those who do not. A reputable seedsman never dreams of raising, himself, all the seeds which he sells. For example, one sort of seed is let out to a farmer, who contracts to raise it in a given soil and manner, and at a distance from all other seeds. One man raises the beet seed; another man, very often hundreds of miles distant, another sort. Peas are sent to Vermont and to Canada, where the pea-bug does not infest them. Some seeds, for which this climate is not favorable, are imported from Italy, from Guernsey, just as flowering bulbs are from Holland. We suppose this to be true of Landreth, Thornburn, Prince, Breck, Risley, &c. In cases where seeds are raised upon the premises of the seedsman, they are put on different parts of the farm, as far apart as possible.

These precautions are indispensable to the procuration of the *best* seeds of esculent vegetables. Species of the same genus, with open flowers, are so easily *crossed*, that, if grown contiguously, they cannot be kept pure. All *cucurbitaceous* plants, such as squashes, pumpkins, melons, cucumbers, gourds, &c., will mix and degenerate if planted even in the same garden. Let any one who wishes to see how it is

done, watch the bee covering itself with golden pollen as it searches for honey in the cells of the flower, and darting off to another, mingling the fertilizing powder of the two. In a single morning, cucumbers will be mixed with each other, and with canteleupes; squashes will be crossed, and in the next generation will shew it. Where the organs of flowers are protected, as in the pea, bean, &c., by a floral envelope, insects do not mix their pollen. I have never known pure beet seed raised in a private garden which had more than the single kind in it —or when another garden was near which had other sorts.

We prefer, *generally*, Northern seeds to those raised among us. A mere change of soil and climate is often advantageous to seeds.—But, besides this, greater care and skill are usually employed at the North in producing sound and safe seeds.

We can recommend, from repeated trials, the seeds of Risley, Chatauque county, New-York, and of Mr. Breck, of Boston. Landreth, of Philadelphia, has a high reputation, but we have been unfortunate in using his seeds—very probably from lack of skill. We shall try them again next summer. The poorest seeds we have tried were the "Union Village" seeds. Our Early York cabbages proved to be trifling flower seeds—Lima beans were the White Dutch Runners. Not one of five of their peas vegetated. The beets were not good seed, and the variety (blood-beet,) not pure. The experience of others, at this point, is like ours. Unless more care is taken in that establishment, their seeds will lose all credit. Their lettuce seed has always proved good, and such others as are easy to raise.

2. We insert a table, exhibiting the years which different seeds will retain their vitality:

	Years.		Years.
Asparagus,	4 or 13	Marjoram,	4
Balm,	2	Melon,	8 or 10
Basil,	1 or 3	Mustard,	3 or 4
Beans,	1 or 2	Nasturtium,	2 or 3
Beets,	8 or 10	Onion,	3
Borage,	2	Parsley,	5 or 6
Cabbage,	6 or 8	Parsnip,	1
Carrot,	1 or 7	Pea,	2 or 3
Celery,	6 or 8	Pumpkin,	8 or 10
Corn,	2 or 3	Pepper,	5 or 6
Cress,	2	Radish,	6 or 8
Cucumber,	8 or 10	Rue,	3
Caraway,	4	Ruta Baga,	4
Fennel,	5	Salsafy,	2
Garlic,	3	Savory,	3 or 4
Leek,	3 or 4	Spinage,	3 or 4
Lettuce,	3 or 4	Squash,	8 or 10
Mangel wurtzel	8 or 10	Turnip,	3 or 4

Some seeds retain their power of germination to an astonishing length of time, as will appear from facts stated by Professor Lindley:

"Not to speak of the doubtful instances of seeds taken from the pyramids having germinated, melons have been known to grow at the age of forty years, kidney-beans at one hundred, sensitive-plant at sixty, rye at forty; and there are now growing, in the garden of the Horticultural Society, raspberry plants raised from seeds sixteen or seventeen hundred years old." (See *Introduction to Botany*, ed. 3, p. 358.)

But in selecting seeds, *fresh* ones should always be had, if possible. Where, however, the vegetable is cultivated for the sake of its flower, or its fruit, it is sometimes better to select old seed. Thus, balsamines (the touch-me-not,) and the cucumber, squash, and melon tribe, do better on seeds three or four years old; for, fresh seeds produce plants whose growth will be too luxuriant for producing fruit; whereas, from old seed the plants have less vigor of growth, but a greater tendency to fruit well.—The preparation of seed for planting, will require another article, which shall be given in proper time.

To keep up a Moist Atmosphere for Cuttings.

In visiting conservatories, we have frequently heard complaints from those who had the care of them, of the difficulty of keeping up a moist atmosphere during the propagation of cuttings. For their benefit, we here present a plan for the same, which we have taken from the Gardeners' Chronicle. We can recommend it as a good one, from having seen it in successful operation in conservatories in this vicinity.

EXPLANATION.

a. The cover of a hand-glass.

b. The frame work of ditto.

c. A tray, or riddle, having a bottom made of copper-wire, or perforated zinc, to receive soil wherein to plant cuttings.

d. An earthen pan, filled with water.

e. Cuttings.

Place the pan upon the ground, and the tray upon the pan, and over these put a hand-glass. —*American Agriculturist.*

☞ Can any of our correspondents inform us if they have ever seen the blight of the pear on quince stocks? and, if not, how can they account for the insect theory?

☞ Spirits of Turpentine, applied with a feather, and turned two or three times in the gullet, or just above the tongue, at the root, is a cure for the *gapes* in chickens; sometimes it requires two or three applications.

Cincinnati Horticultural Society.

REPORT OF FRUIT COMMITTEE FOR THE YEAR 1844.

The Committee on Synonymes, beg leave to offer this, their annual report, conscious, at the same time, that they have performed but little in the department entrusted to their care. Several obstacles have impeded their labors, which it may be well to notice. The principal difficulty arose from not having our duties sufficiently defined. As no premiums are awarded by this Society for meritorious productions,—not even the incentive of a passing notice of comparative excellence or superiority,—the appointment of two committees at the last annual meeting—one on premiums for fruits, and one on the synonymes of fruits—has proved unnecessary. Under these circumstances, we think that one committee on fruits and their synonymes, would fulfil the objects of the Society with more profit and satisfaction to all. The duty of this committee should be—firstly, to examine the quality, comparative excellence, time of ripening, &c., of all fruits presented to the Society; secondly, to identify, if possible, the kind, and give it the true name which has been established by the best pomological authorities, together with the synonymes by which the same is known here and elsewhere; thirdly, a book should be kept by this committee, wherein every specimen of fruit deemed worthy of cultivation should be accurately recorded, under three separate heads, indicating three qualities—first, second, and third—in one of which columns every variety should be placed, with its name, synonymes, time of ripening, size, color, shape, and other distinguishing characteristics.

A course of this kind, it appears to your committee, would tend to some practical results, and would, in a few years, embody a collection of facts, in relation to fruits produced in this climate, that would serve as a guide to cultivators, for the whole Mississippi Valley. By classifying our fruits under three heads, or qualities, and pointing out those most worthy of cultivation, we should, in the course of time, congregate a sufficient number of the first quality, to satisfy the most fastidious, a point desired by all, but heretofore not attainable.

The necessity of such a classification is clearly exemplified in the great confusion in which the names of some of our fine fruits are involved. One instance, among many, may be cited in illustration. Trees of one of our best winter apples are offered for sale at the various nurseries in the neighborhood of Cincinnati, under the uncertain names of Geniton, Genniting, Juneating, June-eating, Neverfail, Rockrimmon, and Ginnit; whereas, the true name, according to Kenrick and Prince, is Rawle's Janette, a fruit much cultivated in Kentucky, and Southern part of Ohio, where it is a great favorite for its productiveness, as well as for its good eating and long-keeping qualities.

The past year has been very unfavorable to the production of fruits in general in this section of country, arising from too frequent and copious rains in the early part of the season, followed by myriads of catterpillars, and other insects, and an alarming extension of that fatal malady, the fire blight, which ravaged not only the pear tree, but the apple, the quince, and some other trees belonging to the same natural family. The vineyards yielded about half a crop; apples a less quantity; peaches were scarce, and much injured by insects; plums, pears, and cherries, almost a total failure; strawberries were fine and abundant. Notwithstanding all these besetting evils, so injurious to the general crop, a very great number of various kinds of fruits, and some of excellent quality, have been presented to the Society for inspection. For many very fine specimens of these, the Society is indebted to its corresponding members, who, we are pleased to see, take a lively interest in its progress and prosperity; also, to many amateur cultivators, who are not members. The various specimens of fruits, when practicable, have been inspected by the members attending the meetings, and then submitted to the committees, who have been in the habit of acting together, as some of each happened to be present. But as no definite system or plan of proceeding has been adopted by either, all that has been done was merely to make a memorandum of the fruits, by whom presented, with a brief sketch of their qualities, most of which have been published in the monthly reports of the Society.

In addition to the well established varieties of apples now cultivated in the East, most of which have already been introduced here, and will soon come into bearing, we possess a great variety which have originated in the Western country from seeds brought by the early settlers, which, having grown in a more congenial climate, may be expected in many instances to possess qualities equal, if not superior, to the parents from which they were derived. A considerable number of these native or seedling fruits, during the past year, have come under the examination of the committee, a few of which are highly deserving of cultivation.—Among these, an apple presented by Mr. George Hill, may be ranked as one of the best. Its origin has not been yet certainly traced; fruit of medium size, ribbed, and a little flattened; stem short and deeply set; eye small; color, greenish yellow; flesh white, tender, crisp, and very finely flavored; an excellent dessert apple; resembles the Fall Pippin, but ripens in August.

Mr. Hill also presented a Seedling Peach, raised by himself, of excellent quality; fruit small, a little elongated, with a distinct suture

on one side; color pale yellowish green, with a deep red in the sunny side dashed on to the green; flesh white, very melting, with a rich flavored juice; stone small, and parting freely from the flesh; ripe 10th August.

Mr. N. Longworth, presented a Peach of Kentucky origin, called the Evelina, which was considered an excellent variety; equal, if not superior, to the Oldmixon.

Mr. Henry Ives, of this city, presented a new Seedling Grape, raised by himself, of a black color, in other respects resembling the Isabella, but ripens much earlier,—this year on the 3d August,—and would probably prove a better variety for more northern climates.

Mr. Rand, of this city, also presented a new variety of Grape, grown by him for several years, origin and name unknown to the committee, but deemed a very valuable grape, from its hardy habits and remarkable productiveness; evidently an American Grape, of a greenish purple color, berries and bunches about the size and form of what is called here the Cape Grape, but which it should be generally known, is nothing more than the Alexander of Prince, or Schuylkill Muscadell. Mr. Rand's grape is quite equal, as a table grape, to Isabella or Cape.

Another matter, to which we would call the attention of the Society, and request their consideration, is the great importance of Books upon the various branches of Horticulture, and we would suggest the propriety of appropriating fifty dollars annually toward the enlargement of our Library, the selection of the books to be made by the President, or by such persons as he may appoint.

All which is respectfully submitted.

STEPHEN MOSHER,
C. W. ELLIOTT,
JOHN SAYERS,
JOHN LEE,
R. BUCHANAN.

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Saturday, *March* 1, 1845.

Minutes read and accepted.

Committee on Ground allowed till next meeting to report.

Committee on Fruits, report read and accepted.

Treasurer's Report read; referred to Messrs. Reeder, Sanders, and Hoffner, to report at the next meeting.

Committee on Grapes allowed farther time.

Committee on Strawberries allowed farther time.

Edwin Campbell, Asaph Smith, and Edwin Folger, were elected members.

On motion, the election of officers was postponed until the first Saturday in April.

Dr. Flagg, Messrs. Mosher and Campbell, were made a committee to examine the Charter, advertise, &c. &c, on the subject.

Box of grafts from Samuel Pond received, per Mr. Ernst, letter read, charges paid, and thanks returned.

Package of wheat from Lieut. Glisson received per Mr. Hoffner; thanks returned.

Bundle of grafts of Detroit Apple distributed by Mr. Hoffner.

Bundle of grafts of various choice fruits,—nine varieties,—distributed by Dr. Smith.

Some apples presented by Mr. Elliott; referred to committee on fruit.

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Saturday, *March* 8, 1845.

Minutes read and approved.

Mr. Duffield offered the following resolutions:

Resolved, by the Cincinnati Horticultural Society, That Mr. Woolsey, of Cuyahoga county, be requested to have inserted, if possible, at the present session of the Ohio Legislature, in the law as amended, the more effectually to prevent the malicious destruction of fruit trees, fruit, vegetables, and other horticultural productions, "the county of Hamilton," (our own members having refused so to do,) as well as to insert live fences among the items enumerated in said bill, (if not already done,) believing that we need the protection of said law, as much as any county in the State.

Resolved, That the President be a committee to communicate the same to Mr. Woolsey immediately.

Mr. Reeder proposed as corresponding members, Philip S. Bush, of Covington, Kentucky, John Notsman, of Philadelphia; both elected unanimously.

A communication was received from N. Longworth, with a specimen of the Rock Plant of California, (ordered to be filed and published;) also, with cuttings of the Ohio Grape, English Gooseberry, Washington Pear, and Large English Gooseberry, for distribution.

Dr. Smith offered for distribution twenty-eight varieties of the plum, pear, and apple.

Mr. Hill, cuttings of Hill's Sweet Apple.

Mr. Latham, Monstrous Pippin and Black Renick.

Mr. Cheeney, cuttings of ten varieties of plums and apples.

Mr. Hastings, cuttings of Duchess D'Angouleme Pear.

Thomas Hancock, of Burlington, New Jersey, has sent a box of scions; not received.

Maj. William Anderson, of Chillicothe, was nominated as a candidate for regular membership at the next meeting.

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Saturday, *March* 15, 1845.

The President in the chair; minutes read and approved.

Grafts handed in by Dr. Smith for distribution:—Black Tartarian Cherry, Swedish Redheart, Hertfordshire Black; Bolmar Washington Plum; Douglass Peach.

Mr. Orange presented grafts of Newtown and Pound Pippins.

Mr. Longworth offered to the members of the Strawberry Committee, a supply of strawberry roots, for the purpose of trying experiments respecting their propagation.

The President presented from Mr. Hamilton Smith, Vice President of the Louisville Horticultural Society, twelve peach trees of very fine kinds.

Mr. Elliott moved that fifty dollars be appropriated to the purchase of books for the increase of the library; on motion, postponed to the next meeting.

The President informed the Board that he had from Col. White, of New Orleans, seeds of the East India Cotton, which would be distributed at the next meeting.

On motion, the thanks of the Society were ordered to be presented to Hamilton Smith, Esq., for his donation of peach trees.

Seeds of Prairie-flowers presented by C. W. Elliott for distribution; also, by the same, seeds of the Sponge-gourd.

Maj. William Anderson, of Chillicothe, was unanimously elected a member of the Society.

Rheum Palmatum, or Rhubarb.

Messrs. Editors:—Can you tell me, if I were to get the *Rheum palmatum* and cultivate and eat it, according to the instructions given by "E. S." in the February number of the Farmer and Gardener, would it be attended with any bad results? A person tells me were I to send to an Eastern establishment, where they call things by their right names, and get the Rheum palmatum and grow it until it was fit to stew or make tarts of, and eat it accordingly, I certainly would get a clean stomach; and were I to eat heartily of it, one meal would be apt to finish me, for all the roots of the Rhubarb family that have palmati, or hand-shaped leaves, are medicinal, the leaves and stems partaking of the same quality, and are *poisonous* to a certain extent. A STRANGER.

Note.—It has been decided by chemists and physicians, that the oxalic acid in the Rhubarb is in so small a quantity, as to do no injury.—Although too great quantities of this plant, when eaten, will, of course, like other things, often derange the stomach, particularly where there is so much of acidity. EDITOR.

☞ All early garden seeds, sown in hills or drills, should have the earth raised on the north side of them.

☞ Potatoes will do for seed planted as late as the end of July.

The Iris.

"The German peasant wreathes his roof with flowers in rich attire,
For sun-tressed Iris weaves for him her urns of fragrant fire;
But we have let a holier gem our lowly home illume,—
The flower of love our lattice lights with undecaying bloom."

This is a very numerous family of plants,—useful as well as ornamental in our Flower-garden, and several species are considered *florist* flowers. The Persian Iris (*Iris persica,*) is a very pretty bulbous rooted plant; and it being of a dwarf growth, makes it more suitable for pot culture, more particularly on account of the plant being rather tender. These bulbs are often brought to this country, with others, from Holland, and have been in cultivation over two hundred years; are easily raised in glasses, the same as Hyacinths, or in pots. This flower is a delicate blue and violet color of great beauty and fragrance, the latter predominating so much that one plant will scent a room. If raised in pots, the soil most suitable, is a rich sandy loam, and should be potted in November, and will flower early the following spring. I have raised them in the open ground, but the care required is considerable, for frost and rain are alike detrimental to them; neither does their beauty attract the observation so much, on account of its dwarf-like appearance, as when in a pot. The Snakeshead Iris (*Iris tuberosa,*) has been in cultivation much longer than the Persian, and is also imported from Holland.—As I never could get one to grow, of its merits or demerits I can say nothing, supposing the reason of their not vegetating to be owing to their being kept out of ground too long. The Chalcedonian Iris (*Iris susiana,*) has striated leaves, with a stem about one foot high, with the most beautiful corrolla of all the species, and flowers in the month of June, and is a native of the Levant, from whence it was imported in 1596. This species requires the same treatment as the Persian. Mr. Hoffner exhibited a fine specimen of this plant last season before the Horticultural Society, when great encomiums were passed on its unrivalled beauty. The Spanish Iris (*Iris xephium,*) is a native of Europe, and is often imported into this country. This bulbous-rooted plant has been much improved by culture; we have about four kinds in cultivation with us; the most common is the blue, but in England, where the greatest attention is paid to their culture, their list amounts to upwards of fifty, of all colors and shades, and their prices vary from twelve to eighteen cents each. The Great Bulbous-rooted Iris,—the English Iris,—is much larger than the Spanish; the flower-stalk is about twice as high, and the flowers in proportion, and equally as prolific in their variety of colors, and can be purchased in London for one dollar per dozen. The time to remove these bulbs is in the months of August and September, and they should never be kept out of the ground more than six weeks, or it will effect their bloom-

ing. The two last named varieties seed abundantly, which should be sown in drills as soon as ripe, and the plants will appear in the spring, and the fourth year will flower; thus repaying a person well for their trouble, as no attention is necessary but weeding and a light protection during the severity of the winter weather.—These bulbs should be removed every third year, for if allowed to remain in the same place a longer time, they will work their way into the ground, and be entirely lost.

T. WINTER.

On the City Flower-Garden.

[From the Manuscript of the American Flower Garden Companion.]

The Flower-garden, attached to city residences, when well managed, embraces many useful features, connected with health and pleasure, and in every way conveys to the citizen a moral lesson in natural history, of the most refined kind. I suppose that every intelligent person is aware, that the continual working of the ground, attached to city residences, is in every way conducive to the health of the inmates, by dispelling and rectifying the impure vapor arising from smoke, and other causes, that condenses and settles on the surface of the ground; which is purified if the earth is frequently turned up; and, in conjunction with this, the benefit arising is of common interest, in proportion to the quantity of ground kept in such order, in any city or town.

Physiologists and philosophers inform us that the vegetable kingdom exhales certain gases conducive to the health of mankind; and we infer the utility of trees and plants in cities, especially when we take into consideration their beauty and cooling shade. Nature, also, the best criterion, convinces us of the use of plants and flowers, the earth being covered in a measure with them, no doubt for the wise purpose of the welfare of the animal kingdom.

In our City Flower-Gardens, let them be so managed that the many varieties of pretty flowering *shrubs* may be introduced, together with hardy *perennial herbaceous plants;* for this purpose, beds or clumps should be laid out in an appropriate manner, according to the size and nature of the ground, always bearing in mind that such beds should be in proportion to the *walks*, *grass plot*, and the like. The plan of the garden I recommend to be such as to give ease with variety, so as to accommodate various plants and shrubs. There should be a corresponding and uniform appearance of the whole garden. The most common error in laying out City Gardens is, that they are too much cut up into small figures, and consequently *shrubs*, so essential to give a variety, cannot be admitted. In contradistinction to this, we often see the ground more than half occupied with walks, which are perhaps six or seven feet wide, laced with borders not more than a foot or eighteen inches broad, and the remainder a grass plot; this has a heavy appearance, besides being inconvenient, as the sod generally overruns the flower-borders, impoverishes the ground, and smothers the plants. Walks from three to four feet wide, and borders of the same width, or a little narrower, will be a good criterion in small gardens, and in larger places four or five feet walks, with borders corresponding; if the centre is a grass plot of large dimensions, then well managed clumps may be introduced, in proportion to one-third of the ground, to a good purpose.

The flower-beds and borders will have a much neater effect, if edged with dwarf Box, Iris, or any other dwarf growing plant, as the Pheasant-eye, Pink, Thyme, or anything that is a neat dwarf hardy plant.

Fences and walls may be covered with the different kinds of running vines, as the Honeysuckles, Clematis, Boursalt; and the different varieties of hardy running Roses and Arbors, may be very properly covered with the Catawba and Isabella Grape vines.

Management.—It would be useless to recommend neat and careful management in the City Flower-Garden, because every one of good taste always keeps such places in order, although many err by mismanagement, especially in the manner of pruning trees and grape vines. The common error in this case is the cutting away yearly all the under branches of fruit trees, as peaches, plums, &c.; and as trees in confined places are prone to a tendency to grow upwards, by this method they are run up into three or four limbs, with small branches on the tops; grape vines also often ramble from arbors or trellises to the tops of neighboring trees, and the consequence is, that the parts intended for shade, are deprived of their nutriment by such ramblers, and die in a year or two; such shoots should always be cut off when they begin to climb the trees in summer.

There is one item I will particularly recommend to be done in the City Flower-Garden, before I leave the subject, namely: the pruning, trimming, and regulating of grape vines, honeysuckles, running roses, and the like, often and neatly in the summer; for in the common error of the neglect of summer pruning, and dressing in the summer, may be traced the many unsightly trees, shrubs, and plants, often to be found in the City Garden.

E. S.

Gooseberry Caterpillar.

To prevent the attack of this pestiferous insect, when the plants are beginning to open their leaf buds, dust the whole of them over with dry soot. This simple method has never been known to fail.

Tree Buyers and Nurserymen.

Economy is a commendable thing, but very curious; not always preserving the unities, as the play writers say. He who saves four cents in the purchase of a tree, spends one dollar in putting cloth straps to his pantaloons, and upon his prudence and economy (?) he thrives. As the season for selling trees is over, I wish to say a few words upon the manner of buying and selling trees, which is practised here. Upon the Market-days, a great number of fruit trees are brought in and exposed in the streets, the roots bare, and exposed to sun, wind, and often frost; upon these Market-days, a great number of intelligent and respectable persons buy these trees, not knowing the person who offers them for sale, never having seen him, and never expecting to again; they plant them, and if they live, take care of them for three, four, or five years, and then perhaps get some fruit. At the same time, there are five or six respectable Nurseries within three miles of this city, in which, at a cost of several thousand dollars each, a great deal of care, and pains and labor, and vexation and disappointment, the best varieties of fruits have been collected from various sources; the Nurserymen themselves, (*we* among them,) are persons who are anxious to build up and keep up reliable and trust-worthy characters, are persons of good standing, not drinking nor lying unless when it is necessary, and at times wearing pretty good clothes, which in itself should inspire confidence; these men advertise that they have trees for sale, but the class of buyers mentioned above, buy rather out of the street collections. Why is this? The nurserymen charge twenty-five cents each, and the street-men fifteen. The nurseryman's trees are six feet high, and the street-man's sixty!—Reason enough! which should be engraven on the hearts of the "Cicinnati Wood Company." I was standing one morning at the corner of Sycamore and Market streets, when one of the best men that I know came along, with a variety of trees, (some five or six, for a small garden,) among them two large ones marked "Bellflower." He asked me some advice about planting, &c. The wood of the Bellflower is pretty distinct, and I saw that his trees were not as marked, and upon looking further, that they had never been grafted or budded; and so I told him, but he concluded to plant them, and wait five or six years, there was a *chance* that they *might* turn out good. Another man wanted to buy a cherry tree, for which I charged a dollar; he went into market and bought a bigger one for half a dollar: and thus proved that I was *above* the market. My tree was a Black Tartarian, and his was a *Sucker* from a Black Mazzard, as near as I could see. The fruit of one year's bearing from my tree would sell for from five to twenty-five dollars; his for from one to five, if at all.

Mistakes may, and do, occur with the most careful of Nurserymen. We cannot always propagate from trees which have fruited, and are obliged to take something upon trust; yet it is very rare to meet with wilful deception.—It is for the interest of Nurserymen to sell good varieties; poor ones can be had for nothing, and every superior variety that fruits creates a demand for it. C. W. E.

Many persons have bought trees from a man who had them displayed on the pavement near to Mr. Dair's, where I have had an office this season, and some have supposed that they were mine. It was not so; and they were not to be depended upon in some cases, as I know.

Walnut Hills Nursery. C. W. ELLIOTT.

The Blight.

Messrs. Editors:—I would inquire of your correspondents, (Mr. Graham and "J. C. F.") if electricity be the cause of the blight in the pear tree, why the disease was unknown for more than a century and a half after the landing of our pilgrim fathers? Many allege that electricity was known in the Garden of Eden; if so, surely our pilgrims must have brought it over with them, and as they at the same time brought over the pear tree, I do not believe electricity would have suffered the tree to have escaped so long. In the case referred to by "J. C. F." is it not more reasonable to suppose that the electric fluid killed the insect, and thereby stopped the blight? He says:—"Five or six pear trees were attacked by the blight at the same time; one of them was struck by lightning, and in that the disease was suddenly stopped. A YEAR OLD.

The Horticultural Society,

Will organize on the first Saturday in this month under their Charter. It is hoped that there will be a full attendance; the Constitution and By-Laws are to be revised and adopted. A new election of officers is to be had, a part of those now acting being about to resign. In the new election, shall we choose such as will give us the most standing abroad, those who will *do* the most at home, or some of both? Shall we continue the Secretary as at present? Shall we make new ones of persons who have leisure enough to attend to the matter? Shall we put them both into one, and pay for the work we have done? Shall we take measures to have our proceedings inserted in the weekly papers by our Secretary, giving us currency and consequence abroad, as well as at home? Shall we spend a few dollars right away to increase our library? These are some of the questions that will come up. 'Tis but a poor economy to hoard money, when we can spend it to advantage.

To Grow Fine Early Strawberries.

As it is of great importance, in growing Strawberries in the open air, to make them produce fine fruit as early as possible, without loss by frogs or slugs, &c., which loss is generally very great, the following plan may be found useful: Fix on each side of the row of strawberries, just before they come into blossom, feather-edged boards at an angle of fifty or sixty degrees. This may be effected by nailing two narrow strips of wood to each board, and pushing them into the ground. The boards should be painted black. This plan makes two or three weeks' difference in the ripening of the fruit; but glass, or an oiled paper frame, being placed on the top, makes a greater difference still, and prevents any of the fruit from being trod upon, or eaten by vermin. This plan, at first sight, may appear to be an expensive one, but it is not so; any old beards will answer the purpose. I have bought old feather-edged boards at half a cent per foot; and, as they are only used in summer, they last for many years. The expense is saved in the first year; for the wood, although painted on each side with a coat of invisible green, costs only about one and a half cents the foot; while the increase of fruit in quantity, as well as in quality, quite compensates for the outlay. In conclusion, I may observe, that watering with strong liquid manure two or three times in the month of February, and frequent waterings during bearing time with pond-water, are, I have found, very beneficial.—*Gardeners' Chronicle.*

A Query.—Eggs of the Peach Worm.

Messrs. Editors:—By accident, I discovered yesterday, on a peach tree in my father's orchard, a singular superfluous substance, surrounding some of the small twigs of the branches. On pulling one of them off and opening it, I discovered a great number of small eggs laid together, which, when examined by means of a magnifier, presented the appearance of a common honey-comb. I should judge there were fifty eggs at least in one of these combs; and I picked from one tree some ten or twelve of them. It suggested itself to me as probable that these eggs would hatch out, (perhaps about the time the leaves of the blossoms would fall off, leaving the embryo peach exposed,) and, as worms, enter the peach, where they would continue to exist until the fruit ripened.

Some of these combs were laid on a shelf in a stove room, and, after remaining there twelve or twenty hours, I examined them, and discovered that a multitude of small, caterpillar-like worms, had been induced, by the heat of the room, to make their appearance prematurely, and were preparing "to travel." Being thus reassured that my conclusions of the preceding day were correct, I determined to submit my discoveries to you, and (if you deemed them of sufficient importance,) to the readers of the Farmer and Gardener.

Accompanying these remarks, is a twig of the tree containing two of the combs, which will serve (by means of an engraving, if you think proper,) to give a more perfect idea of their appearance, than a description from me. I have examined the apple, plum, and peach, but on the latter only can find these eggs, which is an additional argument in favor of my conclusion, viz: that from them originate that notorious enemy of the fruit in question, the *peach worm*, (not the peach *tree* worm.)

I would inquire of fruit growers, who may chance to see this article, whether they have ever noticed this appearance on their trees; and, if so, whether they have carried their observations farther than I have thus far been able to do, and their conclusions. I would suggest, too, that those who may not already have done so, examine their trees, and destroy these eggs before they have hatched, (if, indeed, this information does not reach them too late.)

Yours truly,

JOHN L. WILLIAMS.

Reading, Ohio, March 21, 1845.

Note.—Our correspondent is not, we think, correct in his conclusions. The *excrescences* on the trees he speaks of, are the eggs of caterpillars, and not of the curculio, a winged insect, which punctures, or stings, the plum and the peach. EDITOR.

Horticultural Premiums.

We believe that nothing will have a better tendency to spread the benefits to be derived from our Horticultural Society, than the bestowal of part of the funds of the Society as premiums for the finest fruits, vegetables, and flowers. We would also suggest that premiums be offered for the most ornamental designs appropriate to the decoration of the Exhibition Hall. All this will have the effect of stimulating individuals of all denominations to excel in the productions of the garden, and in the most pleasing and tasteful ornaments to delight the public eye at our Shows. What can be more useful or laudable than peaceful contests of this kind? It is time that we should turn our attention to these things in good earnest. We ought to spare some of our dollars for them.

☞ The best time for grafting is when the sap of the stock is in brisk motion, which occurs in deciduous trees a few weeks before they put forth their leaves; but reproductive evergreens may be grafted during the summer, as well as spring. The periods of the flow of sap should nearly coincide between the scion and stocks.

☞ We stated in one of our former numbers that Mr. E. SAYERS, a practical gardener from the East, intended writing a small work on live fences. We now lay before our readers the introductory chapter. The title of the work will be a "Manual on planting Live Fences, adapted to the Eastern and Western States, with a practical Treatise on the culture of hardy Evergreens, and planting Shrubs and Ornamental Forest Trees." This book will be ready by the first of May.

Live Fences.

THEIR ORIGIN IN GREAT BRITAIN.

Of the many useful improvements that have so much characterized Great Britain in agricultural, rural, and domestic concerns, there are few subjects that have so usefully and extensively been practised, as the planting and culture of live fences for boundary lines, and to guard off cattle, and the like intruders, on cultivated land. We have no authentic account, to my knowledge, or at least familiar to my reading, of the origin of these fences for boundary lines; although it is very evident that they were at first the result of chance, for in Great Britain, it is well known, that where an estate is divided by live fences, that they are not plotted off in a regular manner, but seem to have been laid out by chance, or guided by irregular lines of demarcation. To answer this assertion, I am guided by the original live fences that are found in Great Britain, which consist of the various kinds of native growth of brushwood, as the hazle, thorns, ash, willow, and the like; these natural fences were in my memory found occupying a space from one to two rods wide, and were undoubtedly formerly natural belts of brushwood, cultivated for the purpose of a fence to divide land, in the same manner in which they were found growing, which have been gradually made narrower as the land has become more valuable, until it has been an item of economy, that the fence should not occupy more space than is really necessary, and to meet this end, in many cases the original fence has been destroyed in order to plant one which shall have all the required properties; and for this purpose, the hawthorn has been generally adopted as the most proper and useful article for such fences.

From the above improvement, various kinds of plants have been applied to the live fence, as useful and ornamental. The object of the former being to select such kinds as are of *thick, low, bushy growth, with a number of thorns or prickles*, as armor, to guard off cattle and intruders, for which hawthorn and sloe, plum or blackthorn, are examples, although hawthorn is the most generally used, and considered the best. For ornamental purposes, there are two kinds of fences,—the deciduous and evergreen. The beach, hornbeam, sweetbrier, and the like deciduous plants, are used to enclose shrubberies, flower-gardens, and the like ornamental appendages; and the holly, yew, arbor vitæ, and various other evergreens, are planted where they can be kept in the most perfect order, as ornaments of living green about gentlemens' residences, and for the concealing of unsightly objects, which cannot be so well effected by deciduous plants.

In taking a retrospective view of the land of our forefathers,—"Merry Old England,"—there is great difference in the identical transfer of land from its primogenitive owners to that of this country, although both were undoubtedly properly owned by nearly the same race of people, the Indians; but England, having to wade through wars and continual changes, by religious persecutions and invasions, seems to have been divided into counties parishes, &c., as mere chance might happen, and the subdivision of landed estates bears the same affinity of resemblance, as everything is curvilinear there, and in many cases the identical outlines of parishes, estates, and the like divisions, are uncertain; whilst this country is laid out from the original, by compass and square, into regular divisions, in so easy and practicable a manner that nothing is required but the number and location of the lot, with the assistance of a good surveyor, to find out the identical lines of boundary, or demarcation.

Plums.

Travelling through Kentucky lately, a farmer in the vicinity of Maysville gave me the following remedy for the disease which sometimes afflicts plum trees, causing the plums to fall off before they are ripe. He gave it to me in the form of an anecdote, in which form I will relate it.

A gentleman in his neighborhood rented his farm to a man of considerable ingenuity, reserving to himself one-half the plum trees, of which there were quite a number. The tenant, *about the time the blossoms were bursting*, with a penknife, *cut round* all the principal twigs, just where they branched off from the main limbs, (being careful not to cut into the wood, but simply *through the bark*. After the succeeding rain, a glutinous matter issued from these wounds. The result of the experiment was, that the tenant's trees, in due season, were filled with perfect fruit, which ripened well, while those of the owner cast most of their fruit "before the time." Indeed, the disparity was so great, that the owner of the farm, at the end of the year, would not allow the tenant to remain longer on it, believing that his trees had been injured by some secret application; and he could not be convinced of the true state of the case!

It would be advisable to give this experiment a limited trial, before practising upon it extensively, as it might *possibly* injure the trees.

JOHN L. WILLIAMS.

The Flower Garden for April.

Dahlia seeds, sown the last week in this month, will flower this season; old plants may be put in the ground and covered with a frame to sprout, giving free circulation of air in fine weather; plants struck this way will produce better flowers than if sprouted with the assistance of bottom heat, and strong ones will be produced by the first of June, time enough for good flowers in the fall. Sow China and German Aster and Balsam seeds in the open ground; the last of the month biennial and perennial seeds. The severity of the weather in March has been detrimental to flower-seeds already sown; it will be necessary to sow again to insure flowers the coming season. Tulips and Hyacinths, in the open ground, will need attention; tie up such as develope a weak stem, as the rain at this season will break them down. Transplant biennials and perennials, if not done last month, to where intended to flower. Turn up beds and borders, and loosen the ground between the plants, to prevent the seeds of weeds from germinating, and endeavor to keep this department neat and clean; the appearance through the season depends much on the labor bestowed in the commencement.—Chinese Chrysanthemums should be looked after, and cuttings taken from the tops of the suckers about three inches long, and if put under glass, will strike root very quick; or put them in a shady place, and well watered, your object will soon be obtained. Cape bulbs may be planted in the open ground. Tigridia pavonia and conchiflora, as well as Amaryllis formosissima, and the Tuberose, may be planted out. Lawns may be formed, and turf laid; ornamental trees planted, and box for edging of borders. Carnations, Picotees, and Pinks, will now be spindling up to flower, and must be tied up to prevent their snapping off, as their stems at this season are brittle. Annuals, raised from seed, and protected during the cold, may now be transplanted with safety.

THE PARLOR.

Water your plants more freely as the weather becomes warmer, and give plenty of air. Trim your Roses in pots, and plant cuttings if you wish to increase your stock. Those Roses left out in the frost through neglect during the last month, if uninjured should be cut to within about twelve inches of the pot; it will benefit the plants much, and may save them from total loss. Orange, Lemon, Oleander, Pomegranate, Crape Myrtles, and other plants, may still be repotted into one of a size larger, without disturbing their roots. Camellias will require plenty of water, and their leaves must be kept clean to make them put their young wood freely. Azaleas and Rhododendrons, will need attention. Chinese Primrose, so soon as done flowering, may be divided; each stem will make a good plant for the next season, and if placed in the shade, will soon root. Cineraria, Calceolaria, Auricula, and Polyanthus, will begin to flower; give them plenty of water; increase the Auricula by slips. Geraniums will require repotting, if not done last month, and every encouragement given to their growth; slips may be taken off at any time, and will root freely. Mignonette, and other seeds, for parlor culture, may be sown now. There are many new varieties imported this season, and if credence can be placed in the English floricultural works, deserve the fostering care of the ladies. Carnations, Picotees, and Pinks, in pots, should be top-dressed, and a small portion of old manure placed on the top; this will induce them to put out side shoots for increasing the stock.

T. WINTER.

The White Doyenne, or Virgalieu Pear.

This is an old variety, but too good a one to be thrown by without good reason. In our last number, from the remarks (there quoted,) of one of our Nurserymen, it might be thought to be worthless. In the last year, specimens have been sent in from many different sources,—Mr. Longworth, Dr. Flagg, Mr. Burnett, G. Taylor, Mr. Buchanan, and many others,—all of which were beautiful, perfect, and delicious. In New England, on the sea-shore, it is likely to spot and crack; but even there, a great difference is to be observed in trees in similar situations, one of which is much subject to it, while the other is comparatively free. This pear is one of the best, as to size, shape, and quality, and second to none in flavor, probably, unless the Seckel; liked by many persons better than that. With the single instance mentioned, I have heard nothing against it, and the specimens shown have been very fine. I hope that it will stand our climate for many years to come, and be as great a favorite as ever. The specimens shown by Mr. Longworth, were the *largest* that I have ever seen, and persons cultivating, would do well to get grafts from him, when he can spare them.

C. W. E.

Walnut Hills Nursery, March, 1845.

To Preserve Eggs.

Dip them in a strong solution of lime, like whitewash; take them out, and let them dry; then pack them away in powdered chalk or plaster of Paris. The Germans practice this with success.

☞ Examine well the roots near the stem of peach trees, and remove with a penknife all the grubs. Their presence is shown by the gum oozing out.

Epiphyllum Makoyii